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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/663,455	GHAZALEH ET AL.
	Examiner	Art Unit	
	Loren Chauhan	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _27 July 2007_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-35_ is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-35_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-35 are pending for examination.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3.   Claims 22-28 and 30-35 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

        a.   As to claims 22-28 and 30-35, the claims are non-statutory because the

claims are directed to nothing more than a collection of data, non-functional

descriptive material.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5.   Claims 22, 26-27 and 35 are rejected under 35 U.S.C. 102(b) as being

anticipated by Bailey (US Pat. No. 6,701,513).

6.   As per claim 22, Bailey teaches the invention substantially as claimed including a

computer readable product embodied on computer readable media readable by a

computing device for enabling a user to generate a graphical representation of object

oriented programming logic (Abstract lines 10-13; col. 3, lines 24-27), the product

comprising:

       a graphical user interface in which a user is presented with a plurality of different

symbols for use in developing a graphical representation of object oriented

programming logic, each different symbol representing a different type of object in

object oriented programming (col. 7, lines 57-61);

       computer executable instructions that enable the user to drag and drop symbols

into a workspace (col. 12, lines 35-37) and label the symbol with a label descriptive of

the object's features (col. 9, lines 50-52); and

       computer executable instructions that enable the user to draw lines between

objects in the workspace (col. 4, lines 35-40; col. 9, lines 60-62).

7.   As per claim 26, Bailey teaches the method, wherein the labels are text labels

(col. 10, lines 53-55).

8.   As per claim 27, bailey teaches the method, further comprising:

       computer readable instructions that enable the user to prepare a plurality of the

diagrams corresponding to separate parts of an overall application and further

comprising computer readable instructions for enabling the user to specify relationships

between individual ones of the diagrams (col. 8, lines 14-18; col. 9, lines 53-57).

9.   As per claim 35, Bailey teaches the method, further comprising:

computer executable instructions that enable the user to insert text associated

with symbols in the workspace that can be made to appear in the workspace responsive

to an action taken by a user (col. 10, lines 9-12, 53-55, 58-59, 64-65; col. 34, lines 16-

20).

Claim Rejections - 35 USC § 103

10.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

11.   Claims 24, 28 and 31-32 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Bailey (US Pat. No. 6,701,513) in view of Milakovich (US Pat. No.

6,029,181).

12.   As per claim 24, Bailey does not explicitly teach, fifth computer executable

instructions that enable the user to denote one and only one object in the workspace as

a main object.

13.   Milakovich teaches that enable the user to denote one object in the workspace

as a main object (col. 3, lines 39-41; col. 16, lines 36-39).

14.   It would have been obvious to one of ordinary skill in the art at the time of the

invention was made to combine the teachings of Bailey and Milakovich because

Milakovich's teachings of denoting one object as a main object would help user to easily

understand the logical flow of execution control of the application program that is being

developed.

15.   As per claim 28, Bailey does not explicitly teach, wherein the sixth computer

readable instructions comprise instructions that enable the user to including references

associated with symbols in one diagram identifying at least one other diagram within

which the object represented by that symbol also appears.

16.   Milakovich teaches the method that enable the user to including references

associated with symbols in one diagram identifying at least one other diagram within

which the object represented by that symbol also appears (col. 3, lines 39-40; col. 16,

lines 36-39).

17.   It would have been obvious to one of ordinary skill in the art at the time of the

invention was made to combine the teachings of Bailey and Milakovich because

Milakovich's teachings of referencing symbols in one diagram with other diagram would

help user to easily understand the logical flow of execution control of the application

program that is being developed.

18.   As per claim 29, Milakovich teaches the method, wherein the sixth computer

readable instructions comprise instructions that enable the user to specify in a first one

of the diagrams the nature of the relationship of the representation of the object in the

first diagram relative to the representation of the object in a second diagram (col. 3,

lines 38-41), wherein the relationship between the object as represented in the first and

second diagrams is selected from the group comprising: (1) the second diagram

discloses additional details about the object in the first diagram; (2) the second diagram

shows the object in a more abstract context than the first diagram (col. 16, lines 36-39);

and (3) the object is the main object of the second diagram (col. 3, liens 38-41).

19.   As per claim 31, Bailey does not explicitly teach the method, wherein the

symbols representing different object types include: a first symbol for representing

objects that are application type objects; a second symbol for representing objects that

are window type objects; a third symbol for representing objects that are class type

objects; a fourth symbol for representing objects that are event script type objects; and

a fifth symbol for representing objects that are method type objects; and wherein the additional symbols representing additional program elements include: a sixth symbol for representing data transfers; a seventh symbol for representing databases; an eighth symbol for representing remote links; and a ninth symbol for representing inheritance.

20.   Bailey does teach plurality of objects or icons representing text boxes, radio buttons, scroll bars, menu bars and so on (col. 2, lines 3-9; col. 7, lines 57-61; col. 8, lines 8-11, 15-18, 24-37). Each icon represents a corresponding object class that is available for use by developer.

21.   It would have been obvious to one of ordinary skill in the art at the time of the invention was to add more graphical icons representing other programming objects which will improve the functionality of the system.

22.   As per claim 32, Bailey teaches the method, seventh computer executable instructions that restrict the user to using the sixth, eighth, and ninth symbols to connect two other object symbols (col. 4, lines 35-40).

23.   Claims 1-21, 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey (US Pat. No. 6,701,513) in view of Milakovich (US Pat. No.

6,029,181) and further in view of Visio 2000 Standard Edition User Guide (Published by

Visio International 1999 hereinafter Visio).

24.   As per claim 1, Bailey teaches the invention substantially as claimed including a

method for graphically representing object oriented programming logic (Abstract lines

10-13), the method comprising the steps of:

(1)   providing a plurality of different symbols for use in a diagram of object

oriented programming logic, each different symbol representing a different type of object

in object oriented programming (402, 402a fig. 4A; col. 7, lines 57-61; Col. 8, lines 24-

26);

(3)   labeling the symbol with a label descriptive of the object's features so that

it is distinguishable from other symbols of the same object type (col. 10, lines 53-55, 58-

59, 64-65; col. 11, lines 35-38);

(4)   for each object assigned to or defined within the main object, drawing a

symbol corresponding to that object and labeling the symbol with a label descriptive of

the object's features (col. 10, lines 53-55, 58-59, 64-65; col. 11, lines 35-38); and

(5)   drawing a line between each object drawn in step (4) and another

object in the graphical representation to which it is assigned or within which it is

defined (col. 4, lines 23-26).

However, Bailey does not explicitly teach selecting an object as a main object of the logic to be represented in the diagram and drawing a symbol corresponding to the main object.

Milakovich teaches selecting an object as a main object of the logic to be represented in the diagram (col. 3, lines 39-40; col. 16, lines 36-39) but fails to teach drawing a symbol corresponding to the main object.

Visio teaches drawing a symbol corresponding to an object (pages 15-17).

25.   It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Bailey, Milakovich and Visio because Milakovich and Visio's teaching of main object with symbol would help user to easily understand programming logic that was described in detail according to specification of the system without creating any confusion.

26.   As per claim 2, Bailey teaches the method, further comprising the step of:

(6) providing a plurality of additional different symbols for use in the diagram, each of the additional different symbols representing a different an object oriented programming element other than an object (col. 4, lines 23-26).

27.   As per claim 3, Milakovich teaches the method, further comprising the step of:

graphically denoting the main object in the diagram (col. 3, lines 39-40; col. 16, lines 36-

39). But fails to teach drawing another symbol around the symbol for the main object.

28.   Visio teaches drawing another symbol around the symbol for the main object

(pages 15-17).

29.   As per claim 4, Visio teaches the method, wherein step (7) comprises drawing a

circle completely enclosing the symbol of the main object (page 18, see shape-to-shape

connections).

30.   As per claim 5, Bailey teaches the method, wherein the labels comprise text (col.

10, lines 53-55).

31.   As per claim 6, Bailey teaches the method, wherein step (5) comprises drawing

the line between the object defined in step (4) and another object it is most directly

assigned to or is most directly defined within (col. 4, lines 36-40).

32.   As per claim 7, Visio teaches the method is used to document software (page 6-7).

33.   As per claim 8, Visio teaches the method is used to prepare a program specification (pages 6-7).

34.   As per claim 9, Bailey teaches the method, further comprising the step of: (8) repeating steps (1) - (5) to prepare a plurality of separate diagrams corresponding to separate parts of an overall application (col. 8, lines 14-18).

35.   However, does not explicitly teach a first object is the main object appearing in at least a first one of the diagrams and is not a main object appearing in at least a second one of the diagrams.

36.   Milakovich teaches a first object is the main object appearing in at least one of the diagrams and is not a main object appearing in at least a second one of the diagrams (col. 3, lines 38-41).

37.   As per claim 10, Milakovich teaches the method, wherein a diagram does not disclose objects assigned to and defined within an object and the diagram does disclose objects assigned to and defined within the object (col. 3, lines 38-41).

38.   As per claim 11, Bailey teaches the method, an application-level representation

disclosing an overall software system (col. 8, lines 14-18).

39.   As per claim 12, Bailey teaches the method, wherein the label identifies as

disclosing further details of the object (col. 9, lines 50-53).

40.   As per claim 13, Bailey does not explicitly teach wherein the symbols

representing different object types include: a symbol for representing objects that are

application type objects; a symbol for representing objects that are window type objects;

a symbol for representing objects that are class type objects; a symbol for representing

objects that are event script type objects; and a symbol for representing objects that are

method type objects.

41.   Bailey does teach plurality of objects or icons representing text boxes, radio

buttons, scroll bars, menu bars and so on (col. 2, lines 3-9; col. 7, lines 57-61; col. 8,

lines 8-11, 15-18, 24-37). Each icon represents a corresponding object class that is

available for use by developer.

42.   It would have been obvious to one of ordinary skill in the art at the time of the

invention was to add more graphical icons representing other programming objects

which will improve the functionality of the system.

43.   As per claim 14, it is similar to claim 13 with added symbols; therefore, it is

rejected for the same rationale as claim 13.

44.   As per claim 15, Bailey teaches the method, wherein the sixth, eighth, and ninth

symbols are drawn connecting two other object symbols (col. 4, lines 35-40).

45.   As per claim 16, it is similar to claim 13 with added symbols; therefore it is

rejected for the same rationale as claim 13.

46.   As per claim 17, Bailey teaches the method, further comprising the step of:

providing in a separate description of the logic to be performed responsive to an event

script (col. 10, lines 9-12).

47.   As per claim 18, Bailey teaches the method, wherein the symbol representing

event script type objects is drawn connected to another object that directly executes the

event script corresponding to the event script symbol (col. 9, lines 60-62).

48.   As per claim 19, Bailey teaches the method, wherein the symbol representing

method type objects is drawn connected to the main object of the diagram (col. 4, lines

35-40) and represents that the object is available within that main object and does not

represent that the main object invokes it (col. 7, lines 57-60; col. 8, lines 14-18).

49.   As per claim 20, Bailey teaches the method, wherein the method is implemented

via a computer program, and wherein step (1) comprises providing a graphical user

interface in which a user is presented with a pallet containing the symbols (col. 7, lines

57-61) and wherein steps (3) and (4) comprise dragging and dropping the symbols from

the pallet into a work area (col. 12, lines 35-37).

50.   As per claim 21, Bailey teaches the method, wherein the method is implemented

via a computer program, and wherein step (1) comprises providing a graphical user

interface in which a user is presented with a pallet containing the symbols (col. 7, lines

57-61) and wherein steps (3) and (4) comprise dragging and dropping the symbols from

the pallet into a work area (col. 12, lines 35-37), and wherein the labels comprise text

(col. 10, lines 53-55) and further wherein at least some of the text labels can be made to

appear in the graphical representation via an action taken by a user (col. 10, lines 63-

65).

51.   As per claim 23, Bailey does not explicitly teach the method, further comprising:
fourth computer executable instructions that enable the user to graphically denote the
main object in the diagram by drawing another symbol around the symbol for the main
object.

52.   Milakovich teaches the user to denote the main object in the diagram (col. 3,
lines 39-41). But fails to teach drawing another symbol around the symbol for the main
object.

53.   Visio teaches drawing another symbol around the symbol for the object (pages
15-17).

54.   It would have been obvious to one of ordinary skill in the art at the time of the
invention was made to combine the teachings of Bailey, Milakovich and Visio because
Milakovich and Visio's teaching of main object with symbol would help user to easily
understand programming logic that was described in detail according to specification of
the system without creating any confusion.

55.   As per claim 25, Bailey and Milakovich both do not explicitly teach wherein the
fourth computer executable instructions comprise instructions enabling the user to
enclose the one and only one object within a circle.

56.   Visio teaches the method that enables the user to enclose the one object within a circle (page 18, *see shape-to-shape connections*).

57.   It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teachings of Bailey, Milakovich and Visio because Milakovich and Visio's teaching of drawing one object within a circle would help user to easily understand programming logic that was described in detail according to specification of the system without creating any confusion.

58.   Claims 30 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey (US Pat. No. 6,701,513).

59.   As per claim 30, Bailey does not explicitly teach wherein the symbols representing different object types include: a symbol for representing objects that are application type objects; a symbol for representing objects that are window type objects; a symbol for representing objects that are class type objects; a symbol for representing objects that are event script type objects; and a symbol for representing objects that are method type objects.

60.   Bailey does teach plurality of objects or icons representing text boxes, radio buttons, scroll bars, menu bars and so on (col. 2, lines 3-9; col. 7, lines 57-61; col. 8,

lines 8-11, 15-18, 24-37). Each icon represents a corresponding object class that is

available for use by developer.

61.   It would have been obvious to one of ordinary skill in the art at the time of the

invention was to add more graphical icons representing other programming objects

which will improve the functionality of the system.

62.   As per claim 33, it is similar to claim 30 with added symbols; therefore, it is

rejected for the same rationale as claim 30.

63.   As per claim 34, Bailey teaches the method, further comprising:

computer executable instructions that enable the user to providing in a separate

description of the logic to be performed responsive to an event script (col. 9, lines 9-12).

Response to Arguments

64.   Applicant's arguments with respect to claims 1-35 have been considered but are

moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Loren Chauhan whose telephone number is 571-270-1554. The examiner can normally be reached on Mon.-Thr. 9:30-5:00 (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Loren Chauhan
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